AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of the claims and listing of the claims in the application:

1.-15. (Cancelled)

16. (Previously Presented) A tetracycline compound of formula (III):

wherein:

J⁵ and J⁶ are each independently hydrogen, alkyl, alkenyl, alkynyl, aryl, sulfonyl, acyl, alkoxycarbonyl, alkaminocarbonyl, alkaminothiocarbonyl, substituted thiocarbonyl, substituted carbonyl, alkoxythiocarbonyl, or linked to form a ring;

J⁷ and J⁸ are each alkyl, halogen, or hydrogen;

X is $CR^{6}R^{6}$;

R², R², R⁴, and R⁴ are each independently hydrogen, alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, arylalkyl, aryl, heterocyclic, heteroaromatic or a prodrug moiety;

R⁴ is NR⁴'R⁴", alkyl, alkenyl, alkynyl, aryl, hydroxyl, halogen, or hydrogen; R³, R¹⁰, R¹¹ and R¹² are each hydrogen or a pro-drug moiety;

R⁵ is hydroxyl, hydrogen, thiol, alkanoyl, aroyl, alkaroyl, aryl, heteroaromatic, alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, arylalkyl, alkyl carbonyloxy, or aryl carbonyloxy;

R⁶ and R⁶ are each independently hydrogen, methylene, absent, hydroxyl, halogen, thiol, alkyl, alkenyl, alkynyl, aryl, alkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, or an arylalkyl;

 R^7 is hydrogen, ethyl, phenyl, 4-t-butylphenyl, t-butylaminophenyl or dimethylamino;

R⁸ is hydrogen, hydroxyl, halogen, thiol, alkyl, alkenyl, alkynyl, aryl, alkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, or an arylalkyl;

R¹³ is hydrogen, hydroxyl, alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, or an arylalkyl; and pharmaceutically acceptable salts thereof.

- 17. **(Original)** The tetracycline compound of claim 16, wherein R^4 is NR^4R^4 , X is CR^6R^6 ; R^2 , R^2 , R^6 , R^6 , R^8 , R^{10} , R^{11} , and R^{12} are each hydrogen; R^4 and R^4 are lower alkyl; and R^5 is hydroxyl or hydrogen.
- 18. (Original) The tetracycline compound of claim 17, wherein R^{4} and R^{4} are each methyl and R^{5} is hydrogen.
- 19. (Original) The tetracycline compound of claim 16, wherein J^7 and J^8 are hydrogen.
- 20. (Original) The tetracycline compound of claim 16, wherein J^5 is substituted or unsubstituted alkyl.
- 21. (Original) The tetracycline compound of claim 16, wherein J⁵ is sulfonyl.
- 22. (Original) The tetracycline compound of claim 16, wherein J^5 and J^6 are linked to form a ring.
- 23. (Original) The tetracycline compound of claim 16, wherein J⁵ is heteroaryl.
- 24. (Original) The tetracycline compound of claim 16, wherein J^5 is substituted carbonyl.
- 25. (Previously Presented) The tetracycline compound of claim 16, wherein said compound is selected from the group consisting of:

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NH₂

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N(Me)₂

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N(Me)₂

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NR⁴R⁴

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БH

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 $\underline{\mathbb{N}}R^4R^{4'}$

NH₂

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$$\begin{array}{c|c} & & & \\ &$$

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wherein

R is substituted or unsubstituted alkyl, alkenyl, alkynyl, halogen, alkoxy; and Y is N, O, or S, or pharmaceutically acceptable salts or prodrugs thereof.

26. (Currently Amended) A tetracycline compound selected from the following:

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or a pharmaceutically acceptable salt thereof.

- 27. **(Previously Presented)** A pharmaceutical composition comprising an effective amount of a tetracycline compound of any one of claims 16, 25 or 26, and a pharmaceutically acceptable carrier.
- 28. (Original) The pharmaceutical composition of claim 27, wherein said effective amount is effective to treat a tetracycline responsive state.

29.-42. (Cancelled)

43. (Previously Presented) The compound of claim 16, wherein R⁷ is dimethylamino.

44. (Previously Presented) The compound of claim 16 or 24, wherein J⁶ is alkyl.

45. (Currently Amended) The compound of claim 44, wherein said compound is

, and pharmaceutically acceptable salts

thereof.

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46. (New) The compound of claim 16, wherein said compound is

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\$$

, and pharmaceutically acceptable salts thereof.

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47. (New) The compound of claim 16, wherein said compound is

$$\begin{array}{c|c} & & & \\ &$$

, and pharmaceutically acceptable salts thereof.

48. (New) The compound of claim 16, wherein said compound is

$$\begin{array}{c|c} & & & \\ &$$

, and pharmaceutically acceptable salts thereof.

49. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

50. (New) The compound of claim 16, wherein said compound is

$$\begin{array}{c|c} & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ &$$

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51. (New) The compound of claim 16, wherein said compound is

(New) The compound of claim 16, wherein said compound is 52.

, and pharmaceutically acceptable salts thereof.

(New) The compound of claim 16, wherein said compound is 53.

(New) The compound of claim 16, wherein said compound is 54.

56. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

57. (New) The compound of claim 16, wherein said compound is

$$= \underbrace{OH \underbrace{N}}_{OH} \underbrace{OH}_{OH} \underbrace{$$

, and pharmaceutically acceptable salts thereof.

58. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

59. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

60. (New) The compound of claim 16, wherein said compound is

61. (New) The compound of claim 16, wherein said compound is

62. (New) The compound of claim 16, wherein said compound is

$$\begin{array}{c|c} & & \\ & \\ N \\ & \\ OH \\ & OH$$

63. (New) The compound of claim 16, wherein said compound is

$$\begin{array}{c|c} & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & \\ & & \\$$

64. (New) The compound of claim 16, wherein said compound is

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66. (New) The compound of claim 16, wherein said compound is

$$\begin{array}{c|c} N & & N \\ \hline & N \\ \hline & OH \\ OH & O & OH \\ \hline \end{array} \\ \begin{array}{c} N \\ OH \\ O \\ \end{array} \\ \begin{array}{c} N \\ OH \\ O \\ OH \\ \end{array} \\ \begin{array}{c} N \\ OH \\ O \\ OH \\ O \\ \end{array}$$

, and pharmaceutically acceptable salts thereof.

67. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

68. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

69. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

70. (New) The compound of claim 16, wherein said compound is

71. (New) The compound of claim 16, wherein said compound is

72. (New) The compound of claim 16, wherein said compound is

73. (New) The compound of claim 16, wherein said compound is

74. (New) The compound of claim 16, wherein said compound is

76. (New) The compound of claim 16, wherein said compound is

$$\begin{array}{c|c} & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & &$$

, and pharmaceutically acceptable salts thereof.

77. (New) The compound of claim 16, wherein said compound is

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & &$$

, and pharmaceutically acceptable salts thereof.

78. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

79. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

80. (New) The compound of claim 16, wherein said compound is

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81. (New) The compound of claim 16, wherein said compound is

82. (New) The compound of claim 16, wherein said compound is

83. (New) The compound of claim 16, wherein said compound is

84. (New) The compound of claim 16, wherein said compound is

86. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

87. (New) The compound of claim 16, wherein said compound is

and pharmaceutically acceptable salts thereof.

88. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

89. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

90. (New) The compound of claim 16, wherein said compound is

91. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

92. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

93. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

94. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

95. (New) The compound of claim 16, wherein said compound is

96. (New) The compound of claim 16, wherein said compound is

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

, and pharmaceutically acceptable salts thereof.

97. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

98. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

99. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

100. (New) The compound of claim 16, wherein said compound is

101. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

102. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

103. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

104. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

105. (New) The compound of claim 16, wherein said compound is

106. (New) The compound of claim 16, wherein said compound is

107. (New) The compound of claim 16, wherein said compound is

108. (New) The compound of claim 16, wherein said compound is

109. (New) The compound of claim 16, wherein said compound is

111. (New) The compound of claim 16, wherein said compound is

112. (New) The compound of claim 16, wherein said compound is

113. (New) The compound of claim 16, wherein said compound is

114. (New) The compound of claim 16, wherein said compound is

116. (New) The compound of claim 16, wherein said compound is

117. (New) The compound of claim 16, wherein said compound is

118. (New) The compound of claim 16, wherein said compound is

119. (New) The compound of claim 16, wherein said compound is

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121. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

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122. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

123. (New) The compound of claim 16, wherein said compound is

and pharmaceutically acceptable salts thereof.

124. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

125. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

126. (New) The compound of claim 16, wherein said compound is

127. (New) The compound of claim 16, wherein said compound is

128. (New) The compound of claim 16, wherein said compound is

129. (New) The compound of claim 16, wherein said compound is

130. (New) The compound of claim 16, wherein said compound is

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132. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

(New) The compound of claim 16, wherein said compound is 133.

, and pharmaceutically acceptable salts thereof.

(New) The compound of claim 16, wherein said compound is 134.

and pharmaceutically acceptable salts thereof.

135. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

136. (New) The compound of claim 16, wherein said compound is

137. (New) The compound of claim 16, wherein said compound is

138. (New) The compound of claim 16, wherein said compound is

139. (New) The compound of claim 16, wherein said compound is

140. (New) The compound of claim 16, wherein said compound is

142. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

143. (New) The compound of claim 16, wherein said compound is

$$\begin{array}{c|c} & & & \\ &$$

, and pharmaceutically acceptable salts thereof.

144. (New) The compound of claim 16, wherein said compound is

and pharmaceutically acceptable salts thereof.

145. (New) The compound of claim 16, wherein said compound is

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ &$$

and pharmaceutically acceptable salts thereof.

146. (New) The compound of claim 16, wherein said compound is

147. (New) The compound of claim 16, wherein said compound is

148. (New) The compound of claim 16, wherein said compound is

F H H H OH
$$NH_2$$
 on NH_2 , and pharmaceutically acceptable salts thereof.

149. (New) The compound of claim 16, wherein said compound is

150. (New) The compound of claim 16, wherein said compound is

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152. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

153. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

154. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

155. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

156. (New) The compound of claim 16, wherein said compound is